



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/681,742	05/30/2001	David Maxwell Chickering	MCS-006-01	4866
27662 7590 08/23/2007 MICROSOFT CORPORATION C/O LYON & HARR, LLP 300 ESPLANADE DRIVE SUITE 800 OXNARD, CA 93036			EXAMINER RAYMOND, EDWARD	
			ART UNIT 2857	PAPER NUMBER
			MAIL DATE 08/23/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

09/681,742

Applicant(s)

CHICKERING ET AL.

Examiner

/Edward Raymond/

Art Unit

2857

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7,9-11,13-17 and 20 is/are rejected.
- 7) ☒ Claim(s) 8,12,18,19 and 21-23 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 5/30/01 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
- Paper No(s)/Mail Date 20060411.

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Objections*

1. **Claim 1** is objected to because of the following informalities: The phrase "until the maximal utility objects us full" is unclear. It appears to be a typographical error. The Examiner has understood the phrase to state "object is full". Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. **Claims 1-23** are rejected under 35 U.S.C. 102(b) as being anticipated by Herz et al.

Herz et al. teach a system for automatically determining a set of at least one maximal utility object from a set of at least one object represented by a probabilistic model (Claims 1, 10 and 17: see Figure 12 and col. 8, lines 48-54), comprising: determining an upper bound for the utility of each object (Claims 1, 10 and 17: see col. 16, lines 43-50); sorting the objects by the upper bounds in order of highest to lowest (Claims 1, 10 and 17: see col. 16, lines 18-48: The Examiner notes that the type of sort is selectable); obtaining a set of known object values for a particular entity (Claims 1, 10 and 17: see col. 16, lines 18-48); using the probabilistic model in combination with the information known about an entity to begin predicting the set of maximal utility objects

Art Unit: 2857

from the set of objects (Claims 1, 10 and 17: see col. 13, lines 21-27); examining the utilities associated with each object in the set of objects in the sorted order for selecting maximal utility objects until the set of maximal utility objects is full (Claims 1, 10 and 17: see col. 16, lines 43-50); and continuing the examination of utilities until the utility associated with a lowest utility object in the set of maximal utility objects is greater than the upper bound of the utility of a next sorted object in the set of objects (Claims 1, 10 and 17: see Figure 13B: Return).

Herz et al. teach a method wherein the entities represent users and wherein the objects represent possible user choices (Claim 2: see col. 16, lines 43-50).

Herz et al. teach a system further comprising a utility function for adjusting the upper bounds of the utilities (Claims 3, 11 and 20: see col. 16, lines 43-50).

Herz et al. teach a system wherein the upper bounds of the utilities are weighted via the utility function (Claim 4: see col. 16, lines 43-50).

Herz et al. teach a system further comprising a user interface for weighting the upper bounds of the utilities (Claim 5: see col. 16, lines 43-50).

Herz et al. teach a system wherein different weights are assigned to upper bounds of the utilities associated with different objects (Claim 6: see col. 16, lines 43-50).

Herz et al. teach a system wherein different weights are assigned to upper bounds of the utilities associated with different groups of objects (Claim 7: see col. 16, lines 43-50).

Herz et al. teach a system wherein the objects are resorted by the upper bounds from highest to lowest after adjusting the upper bounds (Claim 9: see col. 16, lines 43-50).

Herz et al. teach a computer-readable medium of further comprising using a set of user preferences in combination with the probabilistic model for determining the at least one highest probability object recommendation (Claim 13: see col. 2, lines 29-35).

Herz et al. teach a computer-readable medium wherein the probabilistic model is a decision tree (Claim 14: see Figures 3 and 4).

Herz et al. teach a computer-readable medium wherein the probabilistic model is a neural network (Claim 15: see col. 26, lines 1-8).

Herz et al. teach a computer-readable medium wherein the probabilistic model is automatically generated using machine learning techniques (Claim 16: see col. 26, lines 1-8).

#### ***Allowable Subject Matter***

4. **Claims 8, 12, 18, 19 and 21-23** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Contact Information***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to /Edward Raymond/ whose telephone number is 571-272-2221. The examiner can normally be reached on M-F 8:30-5PM.

Art Unit: 2857

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eliseo Ramos-Feliciano can be reached on 571-272-7925. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Edward Raymond/  
Primary Examiner  
Art Unit 2857

5/19/07

er

**EDWARD RAYMOND**  
**PRIMARY EXAMINER**